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REMARKS/ARGUMENTS

Claims

The Examiner rejected claims 1, 2, 6-13 and 15-30. By this amendment claims 1, 18, 22, 25-27, and 30 have been amended and claims 2, 8-13, and 19-21 have been cancelled. Therefore claims 1, 6-7, 15-18, and 22-30 are pending in the application.

Claim Rejections – 35 USC §112

Claims 1-2 and 18-19 were rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. The rejection is respectfully traversed.

The Examiner asserted that the specification does not provide an adequate written description of the limitations as recited in the above claims concerning "markings associated with digital ink." The applicants assert that the use of the phrase "markings associated with digital ink" in the claims was described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The applicants reiterate that the term "digital ink" was well known in the field of the present invention at the time the present application was filed. Further evidence of such knowledge is provided, for example, in the following US patents:

US Patent 5,970,455 issued October 19, 1999: "The present invention allows the user to indicate the type of information contained in note marks by attaching properties to the *digital ink* of those note marks. Properties indicate information types that are associated with selected *digital ink*. Properties are associated with the *digital ink* and not the entire digital page so that the individual note marks can easily be identified on the page and viewed."

US Patent 5,926,567 issued July 20, 1999: "Generally, a pen-based computer system captures *digital ink* in the form of many polylines. A polyline is a line or curve between the point where the tip of the stylus makes contact with the writing surface and the point where the tip of the stylus leaves the writing surface. A polyline can be described as a line between a 'pen down' event to a 'pen up' event; it can be viewed as a stroke."

US Patent 5,845,161 issued December 1, 1998: "The touch sensing electronics detects the coordinates of the stylus and displays a line of pixels following the path of the stylus in a manner known in the art as *'digital ink'*."

US Patent 5,600,781 issued February 4, 1997: "The handwriting information can be stored in any type of handwriting format. However, in the preferred embodiment, the handwriting information is stored in a standardized magnetic ink format know as the "JOT" format. The JOT format contains rich attributes required to accurately represent *digital ink*. For example, the JOT format stores pen tip pressure, the timing of each pen stroke, the ordering of the strokes."

All of these patents—each issued prior to the filing date of the present application-—use the term digital ink in the same manner to mean generally a digital representation of a non-textual image or manually generated image, such as a signature, a handwritten note or a graphical image. The above patents thus confirm that the term "digital ink" in the present application was used in a manner that conveyed to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The examiner stated that "the examiner is unclear whether digital ink is visible and/or invisible to the users/operators... the examiner interprets digital inks as markings generated by stylus (pointer 502, fig. 1 of Dymetman) pen as equivalent to netpage pen as shown in fig. 2." However, as defined above, digital ink can be either visible or invisible, because unlike physical inks it is merely a digital representation of a manually generated image. Nevertheless, the applicants have now further clarified the present claims by explicitly reciting "visible markings" and "invisible coded data" in claims 1 and 18.

Support for the added limitations concerning "visible markings" and "invisible coded data" is provided in the specification as originally filed at page 10, lines 26-31:

> *"In its preferred form, the netpage system relies on the production of, and human interaction with, netpages. These are pages of text, graphics and images printed on ordinary paper or other media, but which work like interactive web pages. Information is encoded on each page using ink which is substantially invisible to the unaided human eye. The ink, however, and thereby the coded data, can be sensed by an optically imaging pen and transmitted to the netpage system."*

The applicants have further supported the present claims by reciting portions of the specification as originally filed at page 22, line 28, to page 23, line 13, where the document is referred to as a "netpage" and the differences between the digital image and the stored data include "markings which are not part of the archived netpage":

> *"In general then, provided that the copier is able to sense the identity of an input netpage, it is able to produce a pristine digital copy of the page, with or without the digital ink associated with the page, even if the physical netpage is severely degraded or damaged.*
>
> *By default, markings on the surface of a netpage which are not made with a netpage pen, and which are thus not known to the netpage system, are not duplicated when a netpage is copied in this way. However, since the page is also physically scanned by the image sensor, the copier can detect the presence of markings which are not part of the archived netpage, and can then optionally duplicate those markings. In this case the copier is able to compute the difference between the scanned image and a rendered image of the archived page, and can thus reproduce these differences in the copy. However, this process may reproduce unwanted artifacts such as creases and dirt, if present. If the user has requested an ordinary (non-netpage) copy of the page and the page contains non-netpage input, then the copier can also produce if required a local copy of the page, ie. one produced directly from the scanned image rather than including information from the archived netpage page description."*

The applicants respectfully assert that the present limitation in claim 1 concerning "scanning a document that includes markings associated with digital ink..." is fully supported by the specification including the statement: *"produce a pristine digital copy of the page, with or without the digital ink associated with the page...."* The applicants respectfully remind the examiner that an *in haec verba* recitation of the claim language in the specification is not required. Further, the applicant asserts that the Examiner has not met her initial burden summarized in MPEP 2163.04: "The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97." Additionally, MPEP 1302.01 states: "It should be noted, however, that exact terms need not be used *in haec verba* to satisfy the written description requirement of the first paragraph of 35 U.S.C. 112. *Eiselstein v. Frank*, 52 F.3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995); *In re Wertheim*, 541 F.2d 257, 265, 191 USPQ 90, 98 (CCPA 1976). See also 37 CFR 1.121(e) which merely requires *substantial* correspondence between the language of the claims and the language of the specification."

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Further, the examiner rejected claims 1 & 18 under 35 USC 112, second paragraph, and suggested modifications to the wording of these claims. The applicants have therefore accepted the examiner's proposed language and amended those claims accordingly.

Claim Rejections – 35 USC §103

Claims 1-2, 6-13, and 15-30 were rejected under 35 USC 103(a) as being unpatentable over Tabata et al (US 6537324), and in view of Dymetman et al (US 6330976). The rejection is respectfully traversed.

Distinctions between Tabata et al and the present invention were clearly described in the applicants' response to the previous office action. Xerox's patents concerning its "Intelligent Paper," such as US Patent 6,330,976 to Dymetman et al., disclose the use of coded substrates that include location codes. However, the coded substrates of Dymetman et al. are produced in bulk by a supplier and are then sold to publishers who then print visible content on the substrates. See Dymetman et al. at col. 11, lines 55-62: "A coded substrate supplier could produce sheets of paper in different formats for different uses by the publishing industry." Each sheet includes a *page-id*. The sheets are then bought in bulk by, for example, a publisher, and visible graphic data is then printed over the invisible marks. See Dymetman et al. at col. 11, lines 63-65: "A publisher can buy these apparently uniformly white sheets and can print visible markings on them using standard ink." The publisher must then manually associate each *page-id* with whatever graphic content the publisher chooses to print on the substrate corresponding to each *page-id*. After such manual association occurs, only then is a computer system able to associate a particular *page-id* with a URL or some other visible page specific information. See Dymetman et al. at col. 16, lines 31-34: "In use, processing device 602 extracts from the image data the encoded page-identifier and page-location data to obtain an item of data (>pid, loc>) and communicates the item of data in a wired or wireless fashion to a local device. ..."

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Thus the process of Dymetman that requires manual association between a *page-id* and visible graphic data printed on the page is very different from the Netpages disclosed in the present application. Rather than requiring such manual association, the present invention enables an automatic association between invisible coded data including an identity of a page and visible graphic data printed on the page. Such automatic association is possible because the same printer prints both the location-indicating invisible coded and the associated visible markings substantially simultaneously. That distinction is evident in the presently amended claim 1 that recites "printing <u>using a printer</u> a copy of the document <u>including visible markings</u> and, at the same time, printing on the <u>printed</u> copy, <u>using the same printer, invisible</u> coded data indicative of an identity of the copy."

The above distinctions between Dymetman and the present invention—which distinctions are not disclosed or suggested in Tabata—force the conclusion that a combination of Dymetman and Tabata does not result in a teaching of the present invention. See, e.g., MPEP 2143.03: "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)."

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Conclusion

The applicants thank the Examiner for his careful consideration of the present application and his previous efforts to thoroughly understand the complexities of the present invention, and for his carefully considered suggestions for preferred claim language. The presently amended claims are now clearly distinguishable over the prior art of Tabata et al, McCarthy et al, Dymetman and Barrett et al cited by the Examiner. Therefore it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

Applicant:

PAUL LAPSTUN

Applicant:

KIA SILVERBROOK

C/o: Silverbrook Research Pty Ltd
                  393 Darling Street
                  Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762